IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

1. (original) Process for the production of a food product involving at least one heating step, comprising adding one or more enzymes to an intermediate form of said food product in said production process whereby the enzyme is added prior to said heating step in an amount that is effective in reducing the level of amino acids that are present in said intermediate form of said food product which amino acids are involved in the formation of acrylamide during said heating step.

2. (original) Process according to claim 1 wherein the food product is made from at least one plant raw material.

3. (original) Process according to claim 2 wherein the plant raw material is cereal flour, preferably wheat flour or potato.

4. (previously presented) Process according to claim 1 wherein the enzyme is capable of modifying the side chain of amino acids that are involved in the formation of acrylamide during the heating step of the production process and whereby the degradation products of said amino acids are not, or at least to a lesser extent, giving rise to the formation of acrylamide in comparison with the unmodified form of the amino acid.

5. (original) Process according to claim 4 wherein the enzyme is modifying the side chain of at least one of the amino acids asparagine, glutamine, cystein, methionine, proline, serine, phenylalanine, tyrosine and/or tryptophane.

6. (previously presented) Process according to claim 1 wherein the enzyme is added as an enzyme preparation or produced in situ by a microorganism capable of producing said enzyme.

7. (previously presented) Process according to claim 1 wherein the enzyme preparation is derived from a microorganism.

8. (original) Process according to claim 7 wherein the microorganism is a bacterium, a fungus or a yeast.

9. (previously presented) Process according to claim 1 wherein the enzyme is asparaginase (EC 3.5.1.1) or glutaminase (EC 3.4.1.2).

10. (previously presented) An isolated polynucleotide hybridisable to a polynucleotide of SEQ ID NO: 1 or SEQ ID NO: 2.

11. (currently amended) An isolated polynucleotide according to claim 10 hybridisable under high stringency conditions to a polynucleotide of SEQ ID NO: 1 or SEQ ID NO: 2, wherein high stringency conditions is hybridization in 5x sodium chloride/sodium citrate (SSC) at 68°C, 5x Denhardt's solution, and 1.0% sodium dodecyl sulfate (SDS).

Claims 12-13 (canceled)

14. (original) An isolated polynucleotide encoding an asparaginase comprising an amino acid sequence SEQ ID NO: 3 or functional equivalents thereof.

15. (original) An Isolated polynucleotide encoding at least one functional domain of an asparaginase comprising an amino acid sequence SEQ ID NO: 3 or functional equivalents thereof.

16. (previously presented) An isolated polynucleotide comprising a nucleotide sequence SEQ ID NO: 1 or SEQ ID NO: 2 or functional equivalents thereof.

17. (previously presented) An isolated polynucleotide consisting of SEQ ID NO: 1 or SEQ ID NO: 2.

18. (previously presented) A vector comprising a polynucleotide sequence according to claim 10.

19. (previously presented) A vector according to claim 18 wherein said polynucleotide sequence is operatively linked with regulatory sequences suitable for expression of said polynucleotide sequence in a suitable host cell.

20. (original) A vector according to claim 19 wherein said suitable host cell is a filamentous fungus.

21. (previously presented) A method for manufacturing an isolated polynucleotide according to claim 10 or a vector comprising the polynucleotide sequence, the method comprising the steps of culturing a host cell transformed with said polynucleotide or said vector and isolating said polynucleotide or said vector from said host cell.

22. (currently amended) An isolated asparaginase with an amino acid sequence which is at least 80% identical to SEQ ID NO: 3 ~~or functional equivalents thereof~~.

23. (original) An isolated asparaginase according to claim 22 obtainable from *Aspergillus niger*.

24. (currently amended) An isolated asparaginase obtainable by expressing a polynucleotide according to claim 11 [[10]] or a vector comprising the nucleotide sequence of said polynucleotide ~~sequence~~ in an appropriate host cell.

25. (previously presented) Recombinant asparaginase comprising a functional domain of any of the asparaginase according to claim 22.

26. (currently amended) A method for manufacturing an asparaginase with an amino acid sequence which is at least 80% identical to SEQ ID NO: 3 ~~or functional equivalents~~

~~thereof~~ comprising: ~~the steps of~~ transforming a suitable host cell with an isolated polynucleotide according to claim 10 or a vector comprising the nucleotide sequence of said polynucleotide ~~sequence~~, culturing said cell under conditions allowing expression of said polynucleotide and optionally purifying the encoded polypeptide from said cell or culture medium.

27. (previously presented) A recombinant host cell comprising a polynucleotide according to claim 10 or a vector comprising the polynucleotide sequence.

28. (previously presented) A recombinant host cell expressing a polypeptide according to claim 22.

29. (previously presented) A method of producing a food product comprising incorporating into the food product an asparaginase according to claim 22.

Claims 30-31 (canceled)

32. (previously presented) An isolated asparaginase according to claim 24, wherein the host cell is *Aspergillus niger*.

33. (new) An isolated asparaginase according to claim 22, wherein the amino acid sequence is at least 90% identical to SEQ ID NO: 3.

34. (new) An isolated asparaginase according to claim 22, wherein the amino acid sequence is at least 95% identical to SEQ ID NO: 3.

35. (new) A method for manufacturing an asparaginase according to claim 26, the amino acid sequence is at least 90% identical to SEQ ID NO: 3.

36. (new) A method for manufacturing an asparaginase according to claim 26, wherein the amino acid sequence is at least 95% identical to SEQ ID NO: 3.